Integrated Resource Recovery Centre G/15 Islamabad
PLAN FOR IRRC IN G-15 (ISLAMABAD)
AHKMT-E-GUARD INITIATIVE

JKCHS
Private Initiative
Total 4600 plots
2200 HH are residing now
Secondary collection system was not available

AHKMT
Primary collection service is providing to almost 1500 hh through mutual agreement
Primary collection will be extended gradually within 5 years

Plan for IRRC
1.5 Kanal land by JKCHS
3-5 ton capacity IRRC
UN-Habitat and UNESCAP provided financial support and waste concern and CCD provided technical support for the IRRC
PARTNERSHIP ARRANGEMENTS
SITUATION IN ISLAMABAD

As per survey in 2014 total population is 1.67 million and waste amount was 800 tons per day.

Landfill site is still required.

Secondary collection and waste transportation requires huge funds.

Recyclables and organic material is not being utilized.

Mostly Housing societies of Zone II and Zone V have not proper waste collection and disposal system.
Present Situation

Mixed Waste

Waste Bins Demountable Containers

Transfer Stations

Landfill

PROBLEMS

✓ Water Pollution
✓ Spread of Disease Vectors
✓ Green House Gas Emission
✓ Odor Pollution
✓ More Land Required for Landfill
What is Integrated **Resource Recovery Center (IRRC)**?

IRRC is a facility where significant portion (80-90%) of waste can be composted/recycled and processed in a cost effective way near the source of generation in a decentralized manner. IRRC is based on 3 R Principle.

- Capacity of IRRC varies from 2 to 20 tons/day
- Process waste in a cost effective way
- Promotes Source Separation of waste
- Takes Care of Organic & Inorganic waste
- Produces Good Quality Compost
- Manage Waste in a Decentralized Manner
- Use Low Cost Appropriate Technology
- Promotes Door to Door Collection of Waste
COMPOST PROCESS
Waste Box (pits) & Leachate Water Tanks
Diverting Waste From Landfill to Aerobic Composting Facility

**Existing Situation**

- Methane Emission (Green House Gas)

**Aerobic Composting**

- No Green House Gas Emission
CHALLENGES OF IMPLANTING IRRC

1st IRRC piloting issues
- Community concern
- EIA clearance
- Formulation of business plan
- Waste composition study

Operating issues
- Technical issues
- Compost marketing
- Source separation
- No segregation place

Expansion
- Waste treatment is not on priority
- Capital cost
- Land issues in different cities
- General behavior of SWM
- Policy issue
BENEFITS OF THE IRRC FOR SMALL CITIES

Benefits

- Minimum land require for land filling
- Reduce transportation charges
- Save the environment
- Save cities from the threat of disaster
- Waste convert into recourse and sustainability of departments and organizations
- Keep organic waste out of landfill
- Waste management can be a successful social enterprise
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Lesson learnt from implementation/operation of IRRC

- Waste is useful resource
- IRRC is necessary for sustainable SWM system in small cities & towns
- Encourage waste to manure
- Excellent joint ventures of multi stakeholders
LESSON LEARNT FROM IMPLEMENTATION/OPERATION OF IRRC

- Eco-friendly approaches
- Private sector can operate the facility of waste collection and treatment
- It can easily replicate with local Govt support (AHKMT Replicated in Sakrand Town & Hyderabad Sindh, Mansehra KPK, Hasilpur South Punjab)
CDA needs solid waste treatment plant to address the issue

Solid waste should be segregated and then processed for which Integrated Resource Recovery Centre in Sector G-15 is a proper platform. IRRC is a decentralised recycling and composting facility, which is built and operated at low costs by using limited mechanical technology, ensuring low operational costs and minimal equipment breakdowns. CDA or Metropolitan Corporation Islamabad can utilise this facility by developing a waste treatment plant for proper disposal of solid waste.
THANK YOU